

Applic. No. 09/050,651
Amdt. dated April 23, 2004
Reply to Office action of January 23, 2004

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-10 remain in the application.

In item 2 on page 2 of the Office action, claims 1 and 4-10 have been rejected as being fully anticipated by Deinlein et al. (U.S. Patent No. 4,374,083) (hereinafter "Deinlein") under 35 U.S.C. § 102.

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

a measurement line branching off from the pressure line downstream of the at least one high-pressure pump.

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The object of the invention of the instant application is to provide an apparatus for gas-flushing the primary coolant of a reactor with hydrogen. The apparatus enables a reliable adjustment of the hydrogen concentration in the primary coolant with a simple construction of the apparatus. To achieve this purpose, the present invention provides carrying out the feeding of hydrogen on demand, i.e., dependent on the determined actual concentration of the hydrogen in the primary coolant. The important aspect of the present invention that allows a particularly simple and yet robust construction of the entire system, is considered to be the manner in which the determination of the actual value of the hydrogen concentration is carried out. It is this determination of the actual hydrogen concentration that is the basis for feeding hydrogen into the primary coolant.

The Deinlein reference discloses that the determination of the hydrogen concentration is carried out in the pressure line connected downstream of the high-pressure pumps.

The reference does not show a measurement line branching off from the pressure line downstream of the at least one high-pressure pump, as recited in claim 1 of the instant application.

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The measurement line according to the instant application is a coolant line via which a small portion of coolant guided in the pressure line is branched off. The measuring device is incorporated into this measurement line, which is a coolant line; the measuring device measures the hydrogen concentration.

In the present invention the determination of the actual hydrogen concentration does not take place in the pressure line for the primary coolant and thus the entire amount of coolant, which flows in the pressure line is not evaluated. In the present invention only a small amount of the primary coolant is used as the basis for determining the actual value of the hydrogen concentration. The amount can be kept small so that after evaluation of the actual hydrogen concentration, a feed back into the coolant line is no longer necessary.

Applicants respectfully disagree with the Examiner's comments in item 2 of the Office action that Deinlein discloses a measurement line (78) branching off of the pressure line downstream of the high-pressure pumps. The Examiner compares the line (78) disclosed in Deinlein (Fig. 4) to the measurement line of the instant application. This is not correct because the line disclosed in Deinlein is not a coolant line, it is instead a functional line, i.e., commonly

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a measuring or electronic line. Accordingly, it has to be assumed that the functional line (78) disclosed in Heinlein is connected at the input side with a measuring element, which in turn is connected in the main pressure line for the primary coolant.

In summary, the measuring line of the instant application is a fluid line via which a portion of the primary coolant, which is provided with hydrogen, can be taken out of the pressure line and fed to the measuring device. Contrary thereto, the Deinlein reference discloses a line (78) that is not a fluid line, but instead, an electrical line via which measuring signals can be passed on. Therefore the line (78) disclosed in Deinlein does not anticipate the measuring line as recited in the claims of the instant application.

Since claim 1 is believed to be allowable, dependent claims 4-10 are believed to be allowable as well.

It is appreciatively noted from item 3 on page 3 of the Office action that claims 2 and 3 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims have not been amended as indicated by the Examiner, as the claims are believed to be patentable in their existing form.

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It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-10 are solicited.

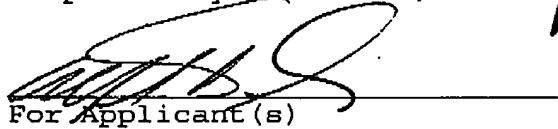
In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

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Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner & Greenberg P.A., No. 12-1099.

Respectfully submitted,



For Applicant(s)

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